

**REMARKS**

This Amendment rewrites claims 1, 25 and 26. Claims 1-7, 9-15, 20, 21, 23 and 25-27 are pending.

Examiner Lee is thanked for allowing claims 20, 21, 23 and 27. It is believed this Amendment places the entire application in condition for allowance for the reasons which follow.

Examiner Lee is also thanked for the courtesies extended to the undersigned during a personal interview held January 6, 2004 as well as a telephonic discussion held March 3, 2004. The Examiner Interview Summary Record accurately reflects the substance of the personal interview. The March 3, 2004 telephonic discussions concerned a draft Rule 132 Declaration. No agreement was reached during these telephonic discussions.

Entry of this Amendment is earnestly requested, as it is believed to (1) place the application in condition for allowance, (2) not to raise any new issue or require further search by the Examiner, (3) to be directly responsive to the telephonic discussions held March 3, 2004 and (4) to place the application in even better form for appeal, should such appeal be necessary. More particularly, this Amendment amends each of claims 1, 25 and 26 by deleting the phrase "and where at least one of R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>7</sup> and

R<sup>8</sup> is not hydrogen". This amendment was made in response to the Examiner's objection that this phrase creates an ambiguity with respect to the proviso in those claims requiring that at least one of R<sup>7</sup> and R<sup>8</sup> is not hydrogen.

The 35 U.S.C. § 103(a) rejection of claims 1-7, 9-12, 25 and 26 over PCT Patent Publication WO 98/22486 to Ewen et al. is respectfully traversed. Process claims 1-7 and 9-12 are directed to the preparation of ethylene polymers using a catalyst system formed by contacting a substituted<sup>1</sup> metallocene compound of formula (I) with a compound selected from a Markush group consisting of an alumoxane and a compound capable of forming an alkyl metallocene cation. The inventors have discovered that the use of a specified halogen-containing metallocene catalyst with substitution at either or both of the R<sup>7</sup> and R<sup>8</sup> positions permits unexpectedly high production of high molecular weight polyethylene.

These surprising results are demonstrated in Table 1. Compounds Z<sub>s</sub>-0 (Example 3), Z<sub>s</sub>-1 (Example 4), Z<sub>s</sub>-2 (Example 7) and Z<sub>s</sub>-3 (Examples 5 and 6) each have at least one of R<sup>7</sup> and R<sup>8</sup> which is not hydrogen. These compounds have higher catalytic activity and I.V. than compounds Z<sub>s</sub>-51 (Example 1) and Z<sub>s</sub>-50 (Example 8) which

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<sup>1</sup>At least one of R<sup>7</sup> and R<sup>8</sup> is not hydrogen.

are not substituted at either the R<sup>7</sup> or R<sup>8</sup> position. Moreover, the data for Examples 5 and 6 can be compared to Example 1. The Examiner's attention is directed to the attached Rule 132 Declaration by Dr. Tiziano Dall'Occo. The Declaration is based on the draft 132 Declaration submitted to the Examiner, and was revised to address the Examiner's hopeful comments thereon. Reconsideration and withdrawal of the obviousness rejection of claims 1-7, 9-12, 25 and 26 over Ewen et al. is respectfully requested.

The 35 U.S.C. § 103(a) rejection of claims 13-15 over Ewen et al. in view of U.S. Patent No. 5,948,873 to Santi et al. is respectfully traversed. These claims all depend from claim 1, and thus are patentable over Ewen et al. for at least the same reasons as claim 1.

Applicants have previously pointed out that one of ordinary skill in the art would not combine Ewen et al. with Santi et al. because the secondary reference discloses a different class of metallocenes. It is even more apparent that Santi et al. fails to disclose or suggest that the metallocene compounds of the claimed process exhibit significantly higher activity and produce

polyethylene of higher molecular weight than suggested by Ewen et al. when used to polymerize propylene.

Reconsideration and withdrawal of the obviousness rejection of claims 13-15 over Ewen et al. in view of Santi et al. are earnestly requested.

It is believed this application is in condition for allowance. Reconsideration and withdrawal of all objections and rejections of claims 1-7, 9-21 and 23-27, and issuance of a Notice of Allowance directed to claims 1-7, 9-15, 20, 21, 23 and 25-27, are earnestly requested. The Examiner is requested to telephone the undersigned should he believe any further action is required for allowance.

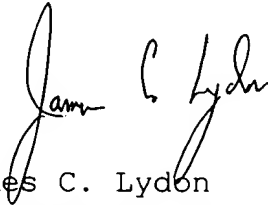
A Petition and fee for a three month Extension of Time are attached. It is not believed that any additional fee is required for entry and consideration of this Amendment. Nevertheless, the

U.S. Patent Appln. S.N. 09/914,305  
AMENDMENT AFTER FINAL REJECTION

**PATENT**

Commissioner is hereby authorized to charge our Deposit Account 50-1258 in the amount of any such required fee.

Respectfully submitted,



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Enclosures:

Petition for Extension of Time  
Rule 132 Declaration